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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/686,110 | 10/14/2003 | Winthrop D. Childers | 200312768 | 6785 |
| 22879 | 7590 | 09/15/2006 | EXAMINER | |
| HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400 | | | | LIANG, REGINA |
| | | ART UNIT | | PAPER NUMBER |
| | | 2629 | | |

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------|-----------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/686,110 | CHILDERS, WINTHROP D. |
| | Examiner Regina Liang | Art Unit 2629 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 July 2006.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-70 is/are pending in the application.
 4a) Of the above claim(s) 37-39 and 62-67 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-36,40-61 and 68-70 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 10/04/03.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (Claims 1-36, 40-61, 68-70) in the reply filed on 7/13/06 is acknowledged.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-36, 40-61, 68-70 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-74 of U.S. Patent No. 7,086,736. Although the conflicting claims are not identical, they are not patentably distinct from each other.

The following is an example for comparing claim 1 of this applicant and claim 2 of P.N.

'736.

| | |
|-----------------------------|----------------------|
| Claim 1 of this application | Claim 2 of P.N. '736 |
|-----------------------------|----------------------|

| | |
|--|---|
| <p>A display system for displaying an image, comprising: an image processing unit configured to process image data and generate a number of image sub-frames corresponding to said image data;</p> | <p>A display system for displaying an image comprising: an image processing unit configured to process image data defining the image and generate said image sub-frames;</p> |
| | <p>a modulator configured to modulate a light beam according to said image sub-frames;</p> |
| <p>a scrolling color device configured to scroll a plurality of colors across a face of said modulator to produce a color light beam bearing said number of image sub-frames;</p> | <p>a sequential color device configured to shine a color light beam on a face of said modulator, said color light beam having a color that sequentially rotates through said plurality of colors,</p> |
| <p>display optics configured to display said image from said color light beam; and</p> | <p>display optics configured to display said light beam such that said plurality of color image sub-frames are successively displayed to form</p> |

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| | said image; |
| a wobbling device configured to displace said color light beam such that said image sub-frames are displayed with varying spatial offsets | a wobbling device configured to displace said light beam between display of each of said color image sub-frames such that a color image sub-frame corresponding to each color in said plurality of colors is displayed in each of a number of image sub-frame locations. |

As can be seen above, claim 1 of this application and claim 2 of P. N. '736 are claiming the same subject matter, claim 1 of this application is broader version of claim 2 of P.N. '736.

4. Claims 1-36, 40-61, 68-70 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 6,984,040. Although the conflicting claims are not identical, they are not patentably distinct from each other.

The following is an example for comparing claim 1 of this applicant and claim 26 of P.N. '040.

| Claim 1 of this application | Claim 26 of P.N. '040 |
|--|--|
| A display system for displaying an image, comprising: an image processing unit configured to process image data and generate a number of image sub-frames corresponding to said image data; | A display system comprising: an image processing unit configured to generate at least two data arrays during a projected frame period, each data array defining a sub-frame image to be displayed |

| | |
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| | during an image sub-frame time period; |
| a modulator configured to modulate a light beam according to said image sub-frames; | a light modulator configured to receive light from the periodic light generator and to generate a modulated light beam during each image sub-frame time period; |
| a scrolling color device configured to scroll a plurality of colors across a face of said modulator to produce a color light beam bearing said number of image sub-frames; | a periodic color light generator having a varying color light period and configured to generate a sequence of primary colors during each of at least two of the image sub-frame time periods; |
| display optics configured to display said image from said color light beam; and | |
| a wobbling device configured to displace said color light beam such that said image sub-frames are displayed with varying spatial offsets | a wobbling device configured to receive the modulated light beam and provide relative displacement between the sub-frame images during the projected frame; a system timing unit configured to synchronize the wobbling device to the varying color light period to allow the projected frame period to be an integer multiple of the varying color light period. |

As can be seen above, claim 1 of this application and claim 26 of P. N. '040 are claiming the same subject matter; claim 26 of P.N. '040 differs from claim 1 of this application in not having display optics, however, such limitation are obvious since the display image in claim 26 of P.N. '040 is a projected display image.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-36, 40-61, 68-70 are rejected under 35 U.S.C. 102(e) as being anticipated by Katoh et al (US 2003/0090597 hereinafter Katoh).

As to claims 1, 28, 34, 40, 68, a display system for displaying an image comprising: an image processing unit (100 in Fig. 37) configured to process image data and generate a number of image sub-frames corresponding to the image data; a modulator (LCD panel 8 in Fig. 1; 104 in Fig. 37) configured to modulate a light beam according to the image sub-frames; a scrolling color device (see Fig. 2) configured to scroll a plurality of colors across a face of said modulator to produce a color light beam bearing the number of image sub-frames; display optics (11 in Fig. 1; 110 in Fig. 37) configured to display said image from said color light beam; and a wobbling device (image shifter 10 in Fig. 1; image shifter 106 in Fig. 37) configured to displace said color

light beam such that said image sub-frames are displayed with varying spatial offsets ([0195] for example).

As to dependent claims 2-27, 29-33, 35, 36, 41-61, 69, 70, see Figs. 1-76 of Katoh.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Regina Liang
Primary Examiner
Art Unit 2674

9/13/06